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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,938	12/14/2001	Kirby Gannett Vosburgh	RD-26907	3887

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EXAMINER	
SANDERS, ALLYSON N	
ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/016,938	VOSBURGH, KIRBY GANNETT	
	Examin r	Art Unit	
	Allyson N Sanders	2876	

-- Th MAILING DATE of this communication appears on the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the amendment filed March 4, 2003.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Hertz et al (6,366,696).

Hertz et al teaches the following in regards to claims 1, 2, and 6:

"A visual bar code recognition method which combines conventional decoding techniques with optical character recognition (OCR). The visual bar code recognition method captures an image of an object containing a bar code." (Abstract, lines 1-4).

"The visual bar code recognition method captures a color image of an object containing a bar code. Regardless of the orientation of the bar code within the field-of-view, the system detects the presence of the bar code, and decodes it using the bar/space patterns. It then produces an independent decoding of the human-readable numbers printed on the bar code using OCR. From these two decodings, it determines the identity of the object. It verifies this identity by comparing the physical

characteristics of the object from the image with the known features of the product." (Col. 1, lines 26-35).

"It is another object of the present invention to provide a visual bar code recognition method which uses a camera to capture an image of an item having a bar code.

It is another object of the present invention to provide a visual bar code recognition method which uses a camera to capture an image of an item having a bar code, and which locates and decodes the bar code." (Col. 2, lines 1, lines 61-67).

"Camera 14 produces an image 28 of bar code 24 and item 26. Preferably, image 28 is a 24-bit color image. Bar code 24 includes black and white bars and human-readable characters." (Col. 2, lines 43-46).

"Bar code reading software 22 locates and decodes bar code 24 and sends the item number to transaction processing software 21. Bar code reading software 22 produces decoded bar code information by analyzing image 28, by using optical character recognition of numeric characters printed with the bar code and evident in image 28, and by comparing features extracted from image 28 with features stored within product database 30." (Col. 2, lines 55-62).

"Storage medium 18 permanently stores bar code reading software 22 and contains product database 30. Product database 30 contains item features that bar code reading software 22 uses to identify item 26. Thus, only items whose features have been previously entered in product database 30 are identifiable." (Cols. 2 and 3, lines 66-4).

"OCR decoding module 38 uses bar code type 50, bar code direction 52, and binary image 54, along with bar code location 42 and orientation 44, to extract the precise regions in image 46 that contain the human-readable characters of bar code 28 and produce decoded human-readable characters string 56." (Col. 3, lines 35-40).

"Edge detection module 62 applies a filter at each pixel of gray scale image 46 to produce a gray scale edge map 68 that indicates whether each point of image 46 is a member of the set of bar code edge pixels (the stronger the edge in the image, the greater the gray level in edge map 68.) The filter filters out pixels having gray scale levels below a predetermined threshold gray scale level.

Magnitude analysis module 64 analyzes edge map 68 to provide the location of bar code 24. An area of edge map 68 with a dense concentration of high strength edges indicates a region of good contrast and the likely location of bar code 24. Magnitude analysis module 64 looks for a density of pixels left from the filtering by edge detection module 62 that is greater than a predetermined threshold density. The center of the region is termed the location 42 of bar code 24." (Col. 3, lines 60-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertz et al (6,366,696) in view of Sandstrom (6,567,163).

Hertz et al's teachings are discussed above.

Hertz et al fails to specifically teach the identifying marker being a raised pattern or being adhesively applied to the exterior surface of the structure.

Sandstrom teaches the following in regards to claim 3-5:

"In some embodiments of the present invention, the microarray substrates comprise identifying markers. The present invention contemplates that such identification be either integral to the microarray substrate or otherwise affixed to the substrates (e.g., tags, stickers, stamps, and the like). For example, the microarray substrates may comprise imprinted, or affixed, alphanumeric, mathematical, or other symbols and characters that represent characteristics about the particular microarray, test sample, or about the source of the microarray targets. More particularly, in some preferred embodiments, the microarray substrates comprise machine readable encoding (e.g., bar codes). The present invention contemplates that microarray substrates marked with machine readable encoding convey information about one or more of the characteristics of the microarray, for example, batch number, reagents and hybridization reaction conditions, microarray feature information, microarray tracking information, diagnostic information about a particular subject or experiment, and the like. In those embodiments comprising machine readable microarray substrates, the present invention may comprise one or more devices selected to perceive the information represented in the machine readable encoding. In yet other embodiments

of the present invention, the microarray substrates comprise raised or tactile identifying markers. The present invention contemplates that those embodiments of microarray substrates that comprise tactile markers comprise either raised areas or indentations that represent alphanumeric, mathematical or other symbols and characters that represent characteristics about the particular microarray, test sample, or about the source of the microarray targets." (Cols. 22 and 23, lines 62-25).

In view of Sandstrom's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use as the identifying marker, a raised pattern and also to have the identifying marker be adhesively applied to the exterior of the surface. One would be motivated to have a raised marker in order to be identified by a human eye. This makes the identification process easier because a bar code scanner is not required. However, if a bar code identifying marker is used, it is advantageous to have it adhesively applied to the structure. That way it could be removed or applied to numerous objects for identification.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hertz et al (6,366,696) in view of Sandstrom (6,567,163) and in further view of Samonides (6,074,570).

Hertz et al and Sandstrom's teachings are discussed above.

Hertz et al in combination with Sandstrom fails to specifically teach the raised pattern being formed by machining the exterior surface of the structure.

Samonides teaches the following:

"The release coating 50 permits the backing sheet 48 to be readily removed for the application of the pressure sensitive adhesive label to a metal surface, such as an automobile part, and when the label has been thus applied, the etchant will etch the indicia 44 permanently into the metal surface. A second or label indicia 24 printed is at the interface of the film 14 and the outer surface of the adhesive layer 34 and is clearly visible through the transparent protective cover sheet 14. The label indicia 24 is preferably identical to and, thus, identifies the etching indicia 44." (Col. 2, lines 46-56).

In view of Samonides's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to the method of machining to create the raised identifying marker. Machining is a well known method of cutting or etching material in order to make a bumpy or raised surface. If creating a raised surface, one would be motivated to a machining process because it is a well known and commonly process.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

The limitation of creating a contour map representation of a structure, which was not met by the prior art disclosed in the previous office action (December 14, 2002), is now met by Hertz et al. Hertz et al teaches an image of an object with an identifying marker formed therein. This image is broadly interpreted as a contour map of the object including an identifying marker.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Rudnick et al (6,069,700), Ishibashi et al (6,494,375), Szabo (5,864,152), Stardust et al (6,403,908), Wuerker (3,603,684), Koopman et al (6,497,062), Huang et al (6,570,642).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson Sanders* whose telephone number is (703) 305-5779. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax phone number for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[allyson.sanders@uspto.gov]**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Allyson Sanders
Patent Examiner
Art Unit 2876
June 10, 2003

MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800